

Please **AMEND** the **CLAIMS** as follows:

1. (Currently Amended) A method implemented on a network device for use in a storage area network, the method comprising:

receiving or generating a packet or frame compatible with a standard protocol employed in the storage area network, the packet or frame including a first header;

encapsulating the packet or frame with a virtual storage area network identifier, a type of traffic to be carried by the packet or frame, and information specifying at least one of a TTL value or MPLS information, wherein encapsulating comprises appending a second header to the packet or frame to create a new packet or frame, wherein the second header includes fields for the virtual storage area network identifier and information specifying at least one of the TTL value or the MPLS information, wherein the second header further includes a field specifying the type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband; and

sending the encapsulated packet or frame.

2. (Original Claim) The method of claim 1, wherein the network device is a switch and wherein sending the encapsulated packet or frame comprises sending the encapsulated packet or frame over an inter-switch link in the storage area network.

3. (Cancelled)

4. (Original Claim) The method as recited in claim 1, wherein the TTL value specifies a number of remaining hops that can be traversed before the encapsulated packet or frame is dropped.

5. (Original Claim) The method as recited in claim 1, wherein the TTL value specifies a remaining lifetime.

6. (Previously Presented) The method of claim 1, further comprising calculating an error check value for the new packet or frame and including the error check value in the new packet or frame.

7. (Currently Amended) The method of claim 1, wherein the second header includes a first field for the TTL value and a second field for the MPLS information.

8. (Cancelled)

9. (Previously Presented) The method of claim 1, wherein the type of traffic to be carried by the packet or frame specifies the standard protocol of the packet or frame.

10. (Currently Amended) The method of claim 1, wherein the second header includes four bits for the field specifying a type of traffic to be carried by the packet or frame.

11. (Currently Amended) The method of claim 1, wherein the second header further comprises a field specifying a user priority for the packet or frame.

12. (Original Claim) The method of claim 1, wherein the standard protocol is Fibre Channel.

13. (Original Claim) The method of claim 1, wherein the standard protocol is Ethernet.

14. (Original Claim) The method of claim 1, wherein the standard protocol is Infiniband.

15. (Previously Presented) The method of claim 1, wherein the header field for the virtual storage area network identifier has 12 bits reserved.

16. (Currently Amended) The method of claim 1, wherein the second header includes a TTL field and the field has 8 bits reserved.

17. (Currently Amended) The method of claim 1, wherein the second header includes an indicator field to indicate whether one or more MPLS labels are present.

18. (Currently Amended) The method of claim 1, wherein the second header includes an indicator field to indicate a number of MPLS labels present in the new packet or frame.

19. (Previously Presented) The method of claim 1, wherein the new packet or frame includes one or more MPLS labels, each of the labels including an indicator to indicate whether the label is the last label in a label stack.

20. (Currently Amended) The method of claim 17, wherein the indicator field is one bit.

21. (Currently Amended) The method of claim 1, wherein the second header further includes a version field indicating a version of the second header.

22. (Currently Amended) A computer-readable medium storing thereon computer-readable instructions for performing a method on a network device in a storage area network, comprising:

instructions for receiving or generating a packet or frame compatible with a standard protocol employed in the storage area network, the packet or frame including a first header;

instructions for encapsulating the packet or frame with a virtual storage area network identifier, a type of traffic to be carried by the packet or frame, and information specifying at least one of a TTL value or MPLS information, wherein the instructions for encapsulating comprise instructions for appending a second header to the packet or frame to create a new packet or frame, wherein the second header includes fields for the virtual storage area network identifier and information specifying at least one of the TTL value or the MPLS information, wherein the second header further includes a field specifying the type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband; and

instructions for sending the encapsulated packet or frame.

23. (Original Claim) The computer-readable medium of claim 22, wherein the network device is a switch and wherein the instructions for sending the encapsulated packet or frame comprise instructions for sending the encapsulated packet or frame over an inter-switch link in the storage area network.

24. (Cancelled)

25. (Original Claim) The computer-readable medium as recited in claim 22, wherein the TTL value specifies a number of remaining hops that can be traversed before the encapsulated packet or frame is dropped.

26. (Original Claim) The method as recited in claim 22, wherein the TTL value specifies a remaining lifetime.

27. (Original Claim) The computer-readable medium of claim 22, further comprising instructions for calculating an error check value for the new packet or frame and including the error check value in the new packet or frame.

28. (Currently Amended) The computer-readable medium of claim 22, wherein the second header includes a first field for the TTL value and a second field for the MPLS information.

29. (Cancelled)

30. (Previously Presented) The computer-readable medium of claim 22, wherein the type of traffic to be carried by the packet or frame specifies the standard protocol of the packet or frame.

31. (Currently Amended) The computer-readable medium of claim 22, wherein the second header includes four bits for the field specifying a type of traffic to be carried by the packet or frame.

32. (Currently Amended) The computer-readable medium of claim 22, wherein the second header further comprises a field specifying a user priority for the packet or frame.

33. (Original Claim) The computer-readable medium of claim 22, wherein the standard protocol is Fibre Channel.

34. (Original Claim) The computer-readable medium of claim 22, wherein the standard protocol is Ethernet.

35. (Original Claim) The computer-readable medium of claim 22, wherein the standard protocol is Infiniband.

36. (Previously Presented) The computer-readable medium of claim 22, wherein the header field for the virtual storage area network identifier has 12 bits reserved.

37. (Currently Amended) The computer-readable medium of claim 22, wherein the second header includes a TTL field and the field has 8 bits reserved.

38. (Currently Amended) The computer-readable medium of claim 22, wherein the second header includes an indicator field to indicate whether one or more MPLS labels are present.

39. (Previously Presented) The computer-readable medium of claim 22, wherein the new packet or frame includes one or more MPLS labels, each of the labels including an indicator to indicate whether the label is the last label in a label stack.

40. (Currently Amended) The method of claim 22, wherein the second header includes an indicator field to indicate a number of MPLS labels present in the new packet or frame.

41. (Original Claim) The computer-readable medium of claim 38, wherein the indicator field is one bit.

42. (Currently Amended) The computer-readable medium of claim 22, wherein the second header further includes an indicator field to indicate whether the second header is present.

43. (Currently Amended) The computer-readable medium of claim 22, wherein the second header further includes a version field indicating a version of the second header.

44. (Currently Amended) A network device for use in a storage area network, the network device comprising:

a plurality of ports each configured to transmit and/or receive packets or frames compatible with one or more standard protocols employed in the storage area network; and

a processor and associated instructions that can encapsulate packets or frames of at least one of the standard protocols to include a virtual storage area network identifier, a type of traffic to be carried by the packet or frame, and information specifying at least one of a TTL value or MPLS information and deliver the resulting encapsulated packets or frames for transmission over the storage area network, the packet or frame including a first header, wherein the processor and associated instructions are configured to append a second header to the packet or frame to create a new packet or frame, wherein the second header includes fields for the virtual storage area network identifier and the information specifying at least one of the TTL value or the MPLS information, wherein the second header further includes a field specifying the type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband.

45. (Currently Amended) A network device for use in a storage area network, the network device comprising:

means for transmitting and/or receive packets or frames compatible with one or more standard protocols employed in the storage area network; and

means for encapsulating packets or frames of at least one of the standard protocols to include a virtual storage area network identifier, a type of traffic to be carried by the packet or frame, and information specifying at least one of a TTL value or MPLS information, the packet or frame including a first header, wherein the means for encapsulating includes means for appending a second header to the packet or frame to create a new packet or frame, wherein the second header includes fields for the virtual storage area network identifier and the information specifying at least one of the TTL value or the MPLS information, wherein the second header further includes a field specifying a type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband; and

means for delivering the resulting encapsulated packet or frames for transmission over the storage area network.

46. (Currently Amended) A switch for use in a storage area network, the switch comprising:

a plurality of ports each configured to transmit and/or receive packets or frames compatible with one or more standard protocols employed in the storage area network, where at least one of the ports supports an inter-switch link with another switch on a storage area network, wherein the packets or frames compatible with one or more standard protocols employed in the storage area network include a first header; and

a processor and associated instructions that can encapsulate packets or frames of at least one of the standard protocols to include a virtual storage area network identifier, a type of traffic to be carried by the packet or frame, and information specifying at least one of a TTL value or MPLS information and deliver the resulting encapsulated packets or frames for transmission from the port supporting the inter-switch link, wherein the processor can encapsulate said packets or frames by adding a second header to the packets or frames to create new packets or frames, wherein the second header includes fields for the virtual storage area network identifier and information specifying at least one of the TTL value or the MPLS information, wherein the second header further includes a field specifying a type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic-include at least one of Ethernet, fibre channel, or Infiniband.

47. (Original Claim) The switch of claim 46, wherein the port supporting an inter-switch link provides fibre channel packets or frames.

48. (Original Claim) The switch of claim 46, wherein the port supporting an inter-switch link provides Ethernet packets or frames.

49. (Original Claim) The switch of claim 46, wherein the port supporting an inter-switch link provides Infiniband packets or frames.

50. (Original Claim) The switch of claim 46, further comprising a plurality of line cards,

each providing at least one of the plurality of ports.

51. (Cancelled)

52. (Previously Presented) The switch of claim 46, wherein the processor can calculate an error check value for the new packet or frame and include the error check value in the new packet or frame.

53. (Currently Amended) The switch of claim 46, wherein the second header includes a first field for the TTL value and a second field for the MPLS information.

54. (Cancelled)

55. (Currently Amended) A method implemented on a network device for use in a storage area network, the method comprising:

receiving or generating a packet or frame compatible with a standard protocol employed in the storage area network, the packet or frame including a first header;

encapsulating the packet or frame with a virtual storage area network identifier and information specifying a type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband, wherein encapsulating comprises adding a second header to the packet or frame to create a new packet or frame, wherein the second header includes fields for the virtual storage area network identifier and the information specifying the type of traffic to be carried by the packet or frame; and

sending the encapsulated packet or frame.

56. (Original Claim) The method of claim 55, wherein the network device is a switch and wherein sending the encapsulated packet or frame comprises sending the encapsulated packet or frame over an inter-switch link in the storage area network.

57. (Cancelled)



58. (Currently Amended) The method of claim 55, wherein the second header further includes a first field for the TTL value and a second field for the MPLS information.

59. (Original Claim) The method of claim 55, wherein the type of traffic to be carried by the packet or frame specifies the standard protocol of the packet or frame.

60. (Currently Amended) A computer-readable medium storing thereon computer-readable instructions that, when executed by a computer, causes the computer to for ~~performing~~ perform a method on a network device in a storage area network, comprising:

instructions for receiving or generating a packet or frame compatible with a standard protocol employed in the storage area network, the packet or frame including a first header;

instructions for encapsulating the packet or frame with a virtual storage area network identifier and information specifying a type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband, wherein the instructions for encapsulating comprise instructions for adding a second header to the packet or frame to create a new packet or frame, wherein the second header includes fields for the virtual storage area network identifier and the type of traffic to be carried by the packet or frame; and

instructions for sending the encapsulated packet or frame.

61. (Original Claim) The computer-readable medium of claim 60, wherein the network device is a switch and wherein sending the encapsulated packet or frame comprises sending the encapsulated packet or frame over an inter-switch link in the storage area network.

62. (Cancelled)

63. (Currently Amended) The computer-readable medium of claim 60, wherein the second header further includes a first field for the TTL value and a second field for the MPLS information.

64. (Original Claim) The computer-readable medium of claim 60, wherein the type of traffic to be carried by the packet or frame specifies the standard protocol of the packet or frame.

65. (Currently Amended) A method implemented on a switch for use in a fibre channel network, the method comprising:

receiving or generating a fibre channel packet or frame, the fibre channel packet or frame including a first header;

encapsulating said fibre channel packet or frame with a TTL value, wherein encapsulating comprises adding a second header to the packet or frame to create a new packet or frame, wherein the second header includes a field for the TTL value a virtual storage area network identifier, and a type of traffic to be carried by the packet or frame, wherein the second header further includes a field specifying the type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband; and

sending the encapsulated packet or frame over an inter-switch link in the fibre channel network.

66. (Currently Amended) A computer-readable medium storing thereon computer-readable instructions for performing a method on a switch for use in a fibre channel network, comprising:

instructions for receiving or generating a fibre channel packet or frame, the fibre channel packet or frame including a first header;

instructions for encapsulating said fibre channel packet or frame, wherein encapsulating comprises adding a second header to the packet or frame to create a new packet or frame, wherein the second header includes a virtual storage area network identifier, a field for the TTL value, and a field specifying a type of traffic to be carried by the packet or frame, wherein the type of traffic to be carried by the packet or frame is one of two or more available types of traffic, wherein the two or more available types of traffic include at least one of Ethernet, fibre channel, or Infiniband; and

instructions for sending the encapsulated packet or frame over an inter-switch link in the fibre channel network.